FIG.1

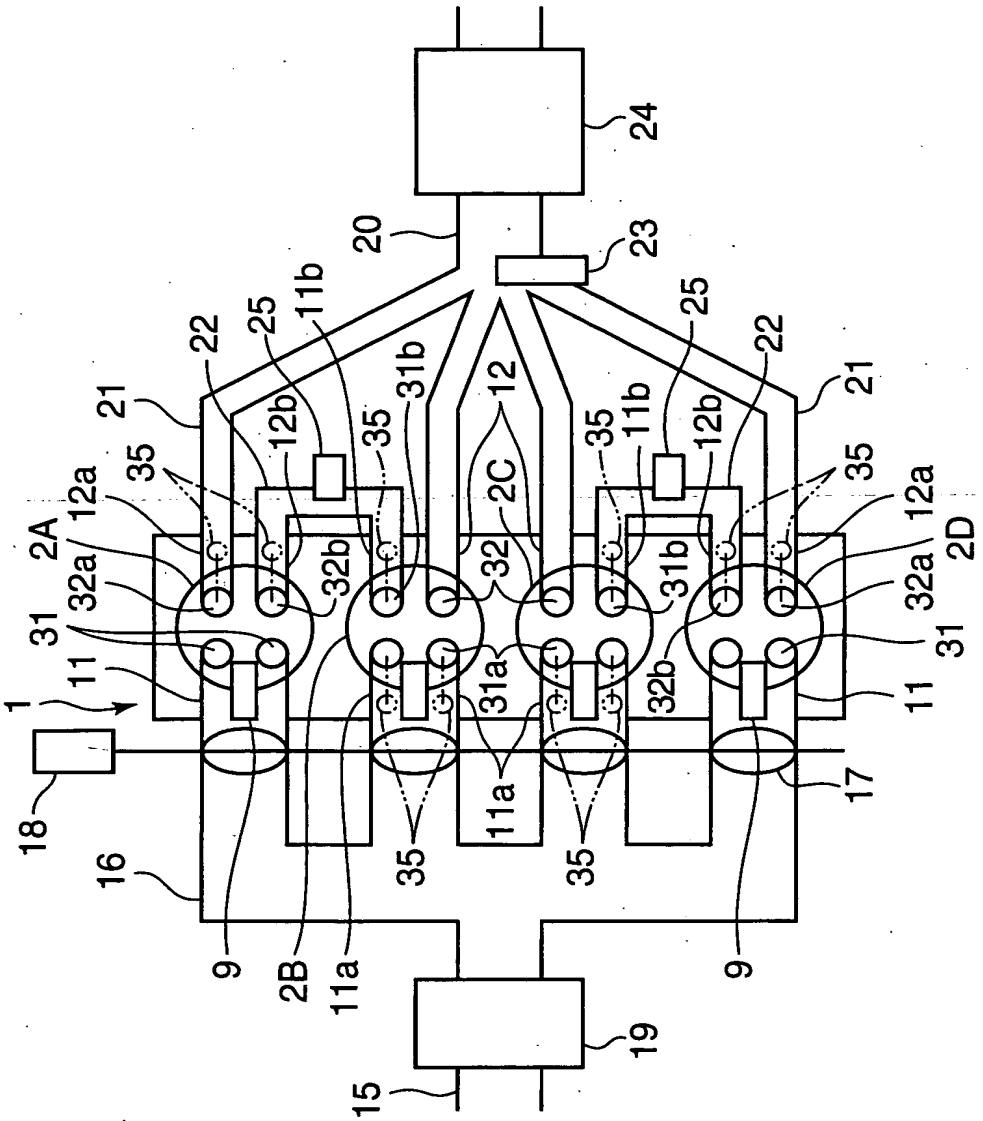

24
20
23
25
11b
22
21
12b
35
31b
12
2C
32
2A
12a
32a
31
11
1
18
16
9
2B
11a
15
19
17
31a
32b

FIG.2

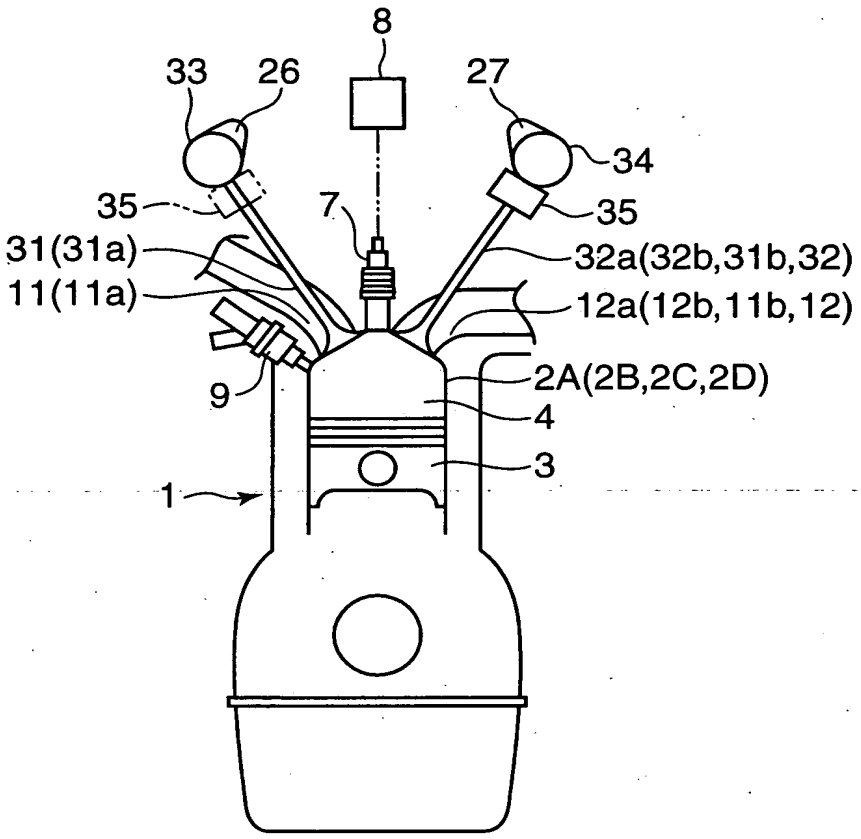

8
33
26
27
34
35
7
35
31(31a)
32a(32b,31b,32)
11(11a)
12a(12b,11b,12)
2A(2B,2C,2D)
9
4
3
1

FIG.3

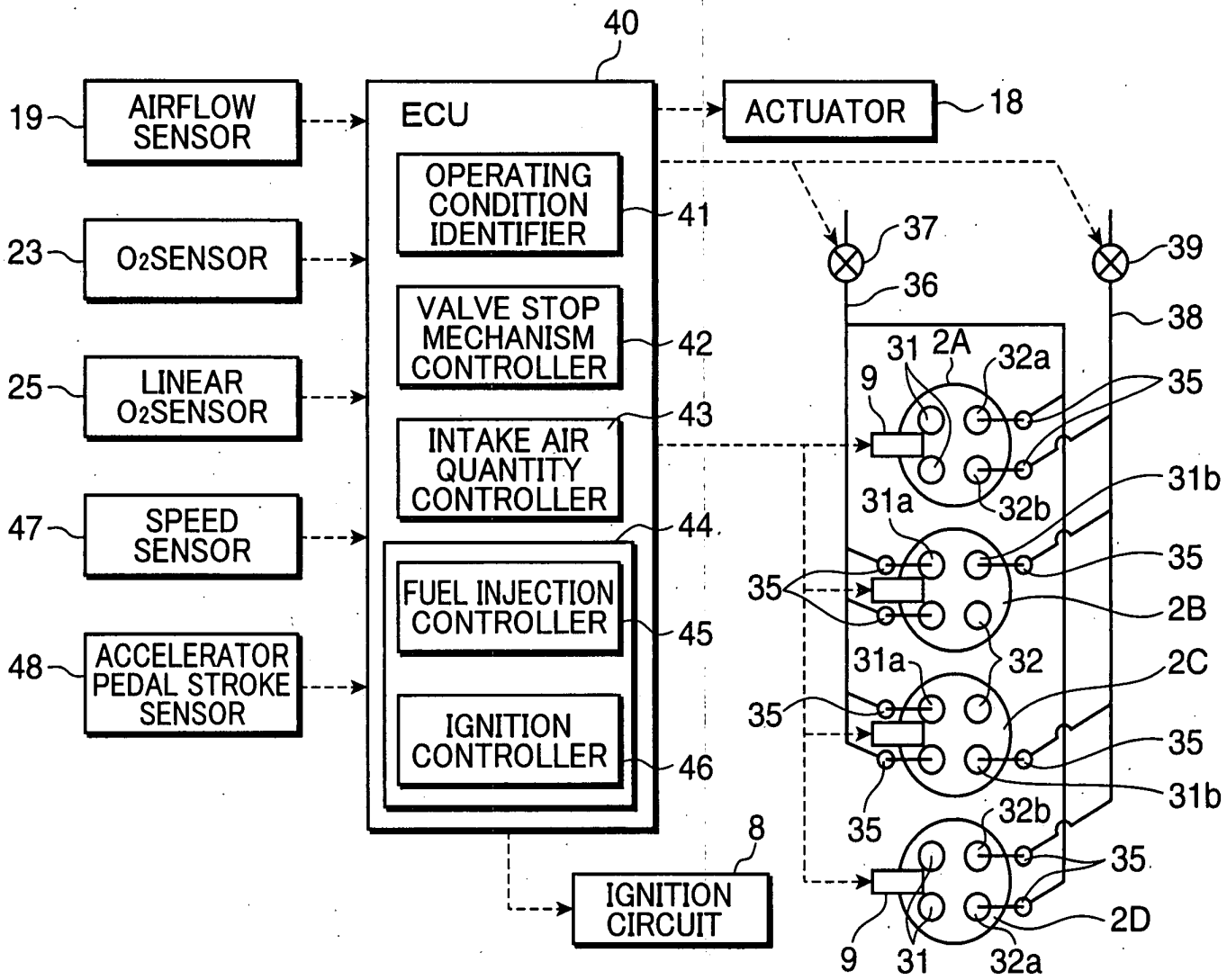

40
ECU
19
AIRFLOW SENSOR
23
O2SENSOR
25
LINEAR O2SENSOR
47
SPEED SENSOR
48
ACCELERATOR PEDAL STROKE SENSOR
OPERATING CONDITION IDENTIFIER
41
VALVE STOP MECHANISM CONTROLLER
42
INTAKE AIR QUANTITY CONTROLLER
43
FUEL INJECTION CONTROLLER
44
45
IGNITION CONTROLLER
46
ACTUATOR
18
IGNITION CIRCUIT
8
37
39
36
38
31
2A
32a
9
35
31b
31a
32b
2B
32
2C
2D

FIG.4

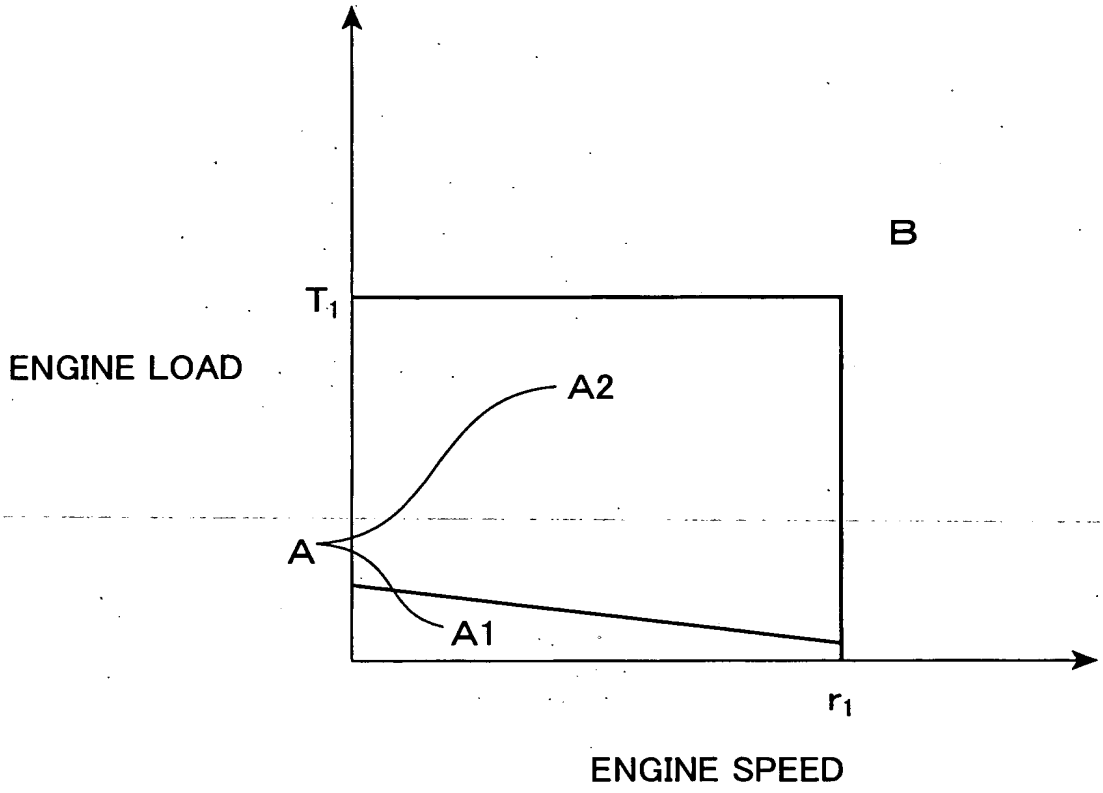


FIG.5

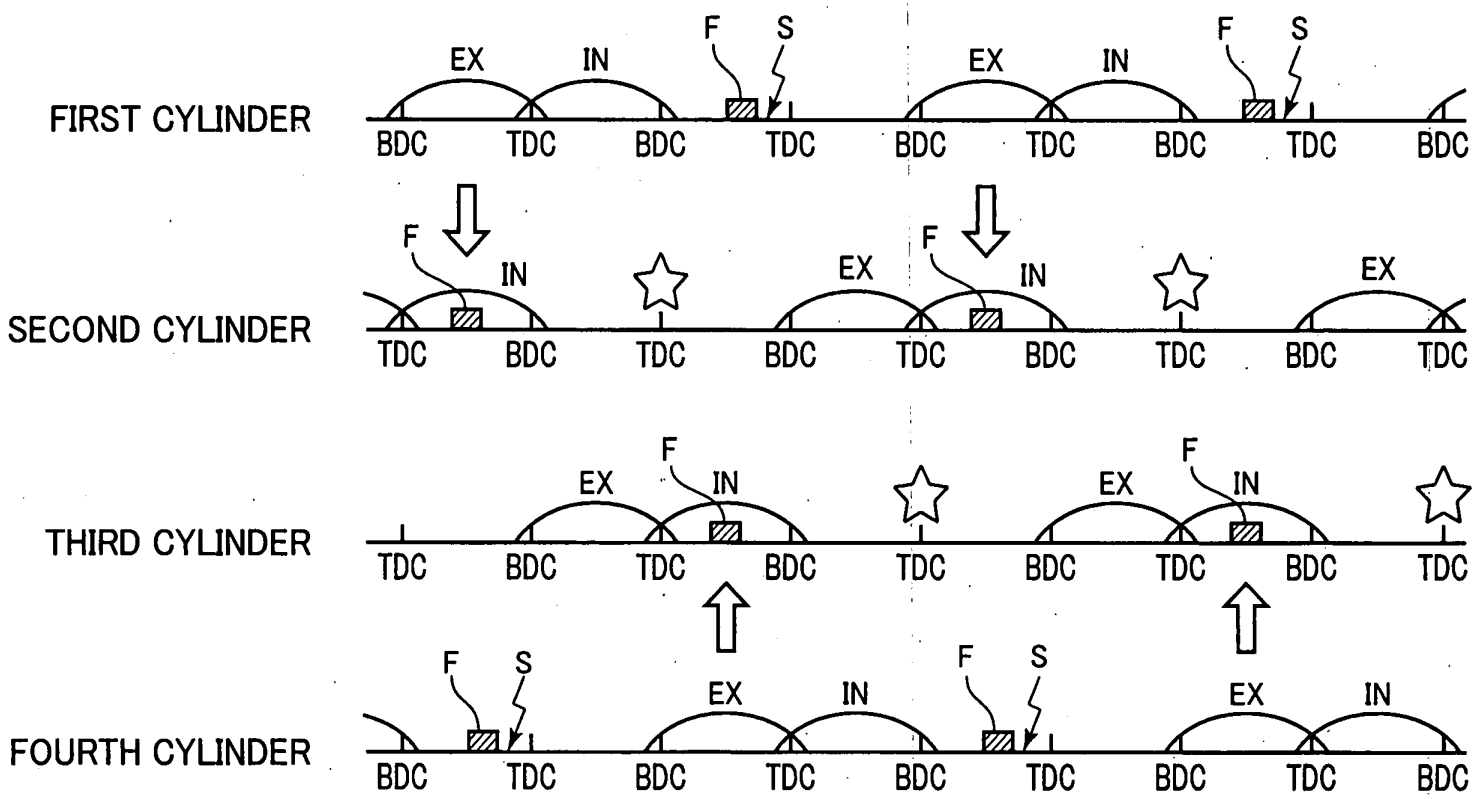

FIRST CYLINDER
SECOND CYLINDER
THIRD CYLINDER
FOURTH CYLINDER
EX
IN
F
S
BDC
TDC

FIG.6

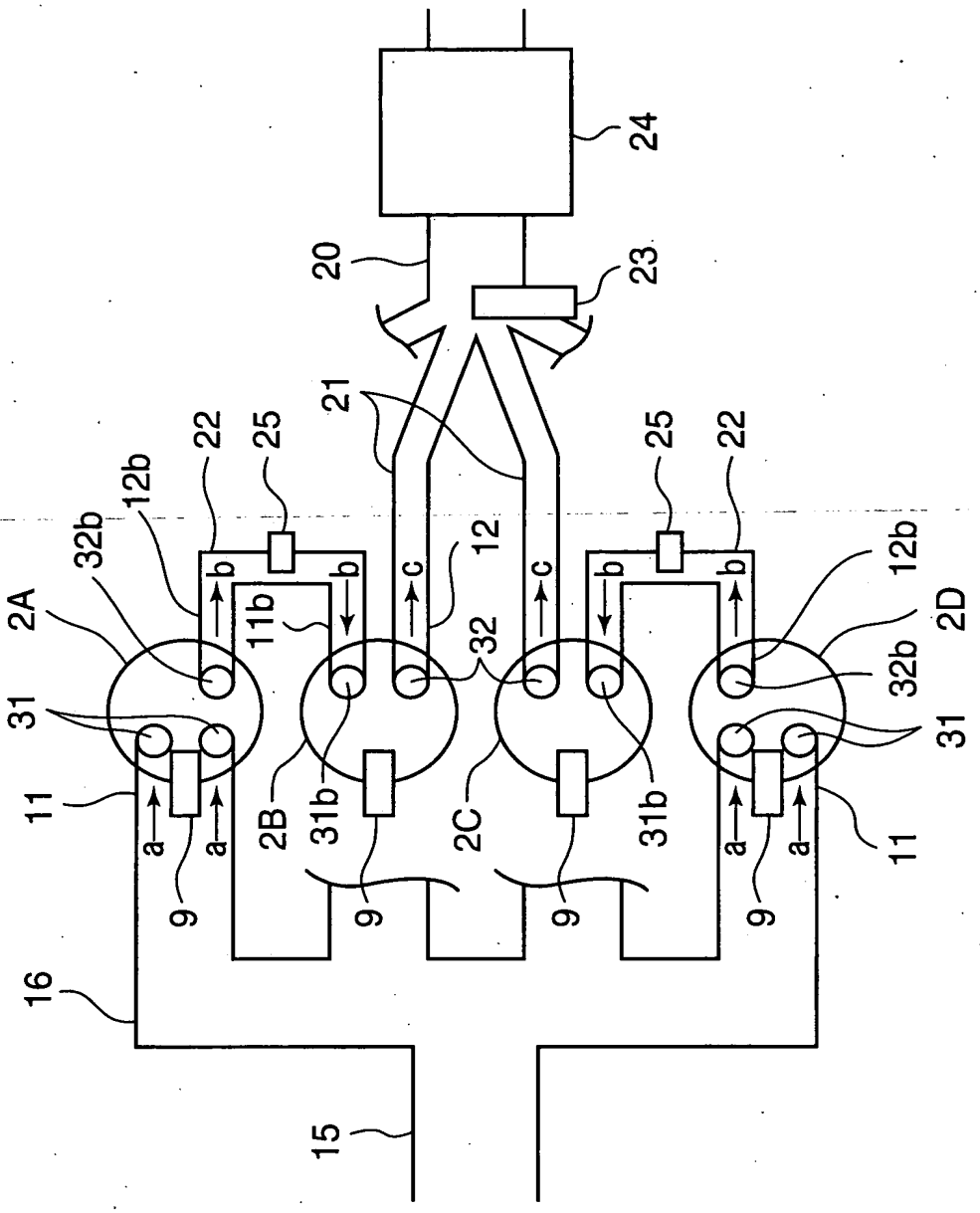


FIG.7

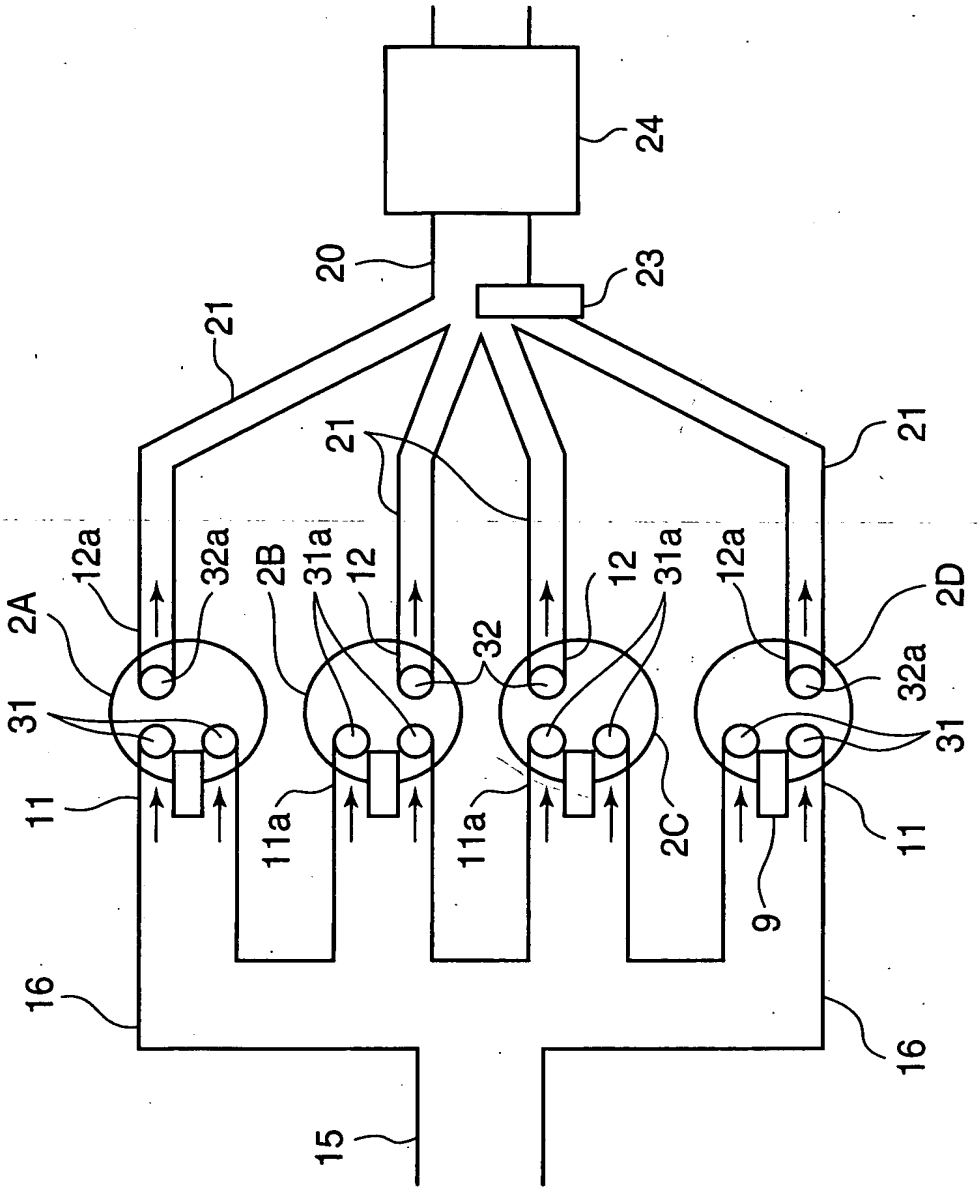

24
20
23
21
21
21
12a
32a
2A
2B
31a
12
32
12
31a
12a
2D
32a
31
31
11
11a
11a
2C
11
9
16
16
15

FIG.8

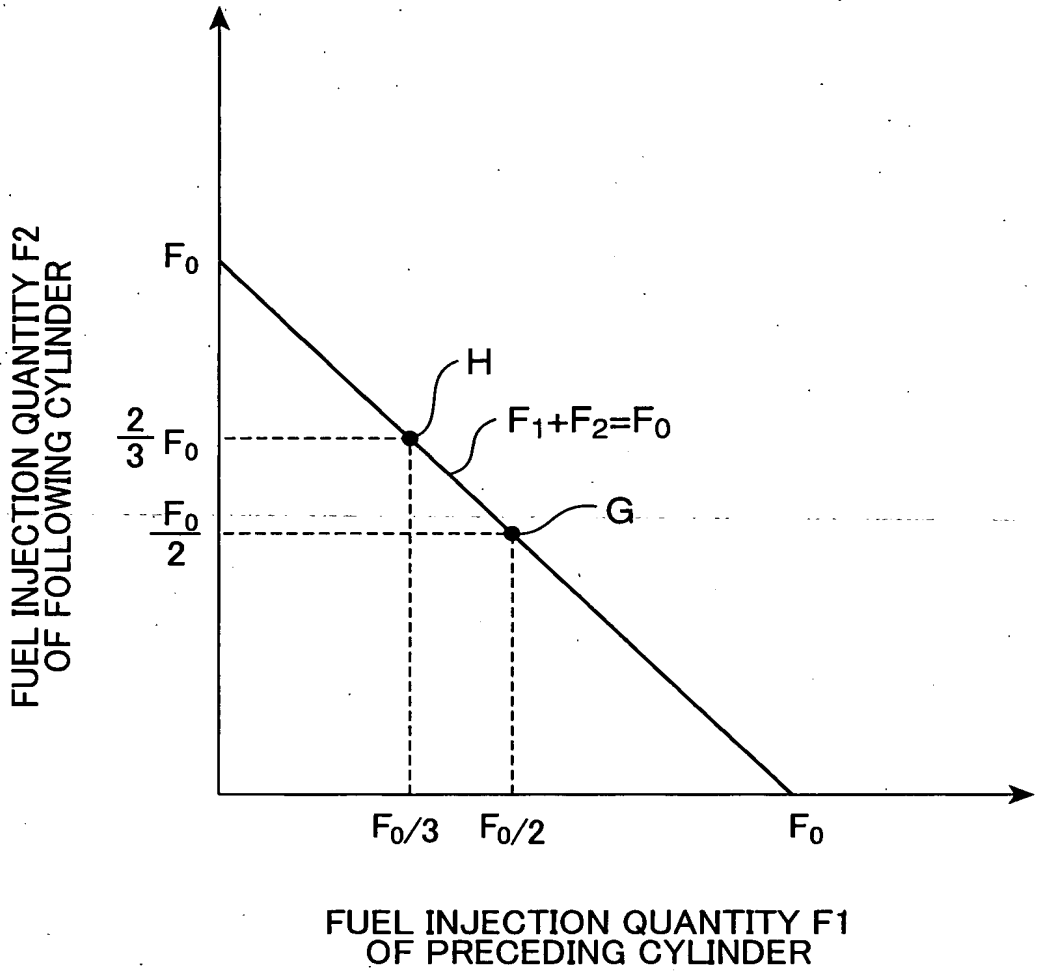

FUEL INJECTION QUANTITY F2
OF FOLLOWING CYLINDER
F0
2/3 F0
F0/2
H
F1+F2=F0
G
F0/3
F0/2
F0
FUEL INJECTION QUANTITY F1
OF PRECEDING CYLINDER

FIG.9

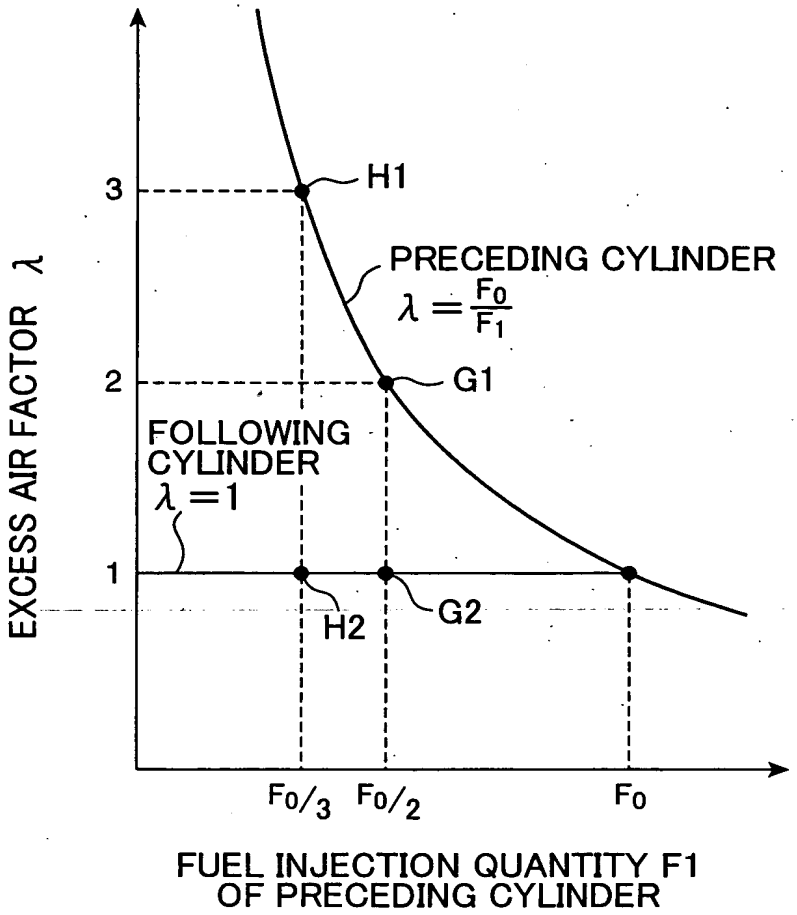
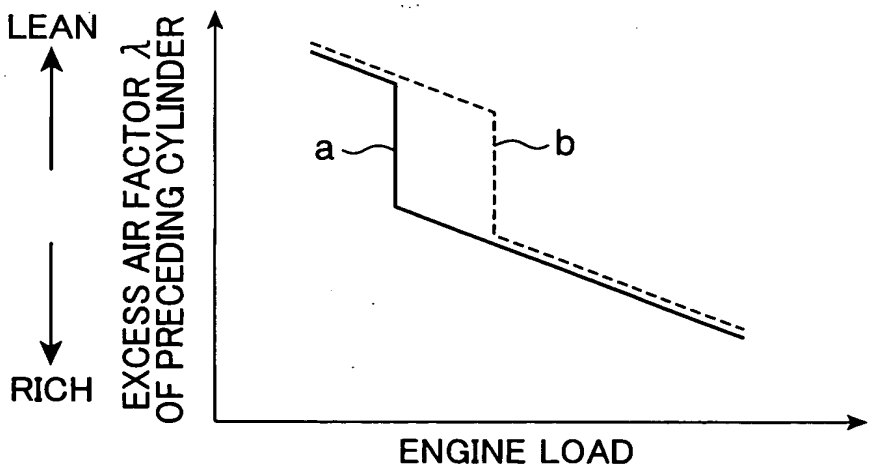

EXCESS AIR FACTOR λ
3
2
1
H1
PRECEDING CYLINDER
λ = F0/F1
G1
FOLLOWING
CYLINDER
λ = 1
H2
G2
F0/3
F0/2
F0
FUEL INJECTION QUANTITY F1
OF PRECEDING CYLINDER

FIG.10


LEAN
RICH
EXCESS AIR FACTOR λ
OF PRECEDING CYLINDER
a
b
ENGINE LOAD